

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/620,675	PUNSALAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	EUGENIA WANG	1795	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment received September 8, 2009.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>9/14/09</u> .</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the amendment received September 8, 2009:
  - a. Claims 55-56 have been cancelled as per Applicant's request. Claims 1-18 are pending.
  - b. The previous objection to the Specification is withdrawn in light of the amendment
  - c. The previous rejection of record has been withdrawn in light of the amendment (as the previous rejections are directed towards claims that are currently cancelled).

### ***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Nichols on September 14, 2009.

The application has been amended as follows:

- a. In claim 2, replace the header of "(currently amended)" to '(previously presented)' in order to make the amendment compliant.

### ***Allowable Subject Matter***

3. Claims 1-18 are allowed.

The reasons for allowability of that claimed subject matter has been set forth in the Office Action dated July 8, 2009. Such reasons are incorporated herein and reiterated for clarity's sake.

The following is an Examiner's statement of reasons for allowance: none of the prior art of record, alone or in combination, appear to teach, suggest, or render obvious the invention of at least claim 1.

Claim 1 teaches the method of manufacturing an electrolyte comprising the elements therein. Notably, the method includes coupling a porous substrate to a charged electrode; electrodepositing a polymeric electrolyte on said porous substrate including in pores of said substrate; and coupling said electrolyte and porous substrate to an anode, a cathode, and a catalyst.

None of the prior art pieces of record, teach, suggest, or render obvious such a method. WO 01/94668 (Furuya, using US 2003/0134177 as the English equivalent), previously relied upon does not teach such a feature. Furuya's example 9 (para 0193-0201) teach of electrophoretic deposition of a polymer electrolyte on foil (substrate, also a charged anode of the system). However, the substrate is not porous (as it is a foil), and it is also removed prior to making the fuel cell (the assembly of the electrolyte with the reaction layers) (para 0200). It is noted the foil would necessarily be removed prior to the formation of the fuel cell, because if it (foil) was left on, no porosity would be present for fuel cell function (i.e. ion transport across the electrolyte). It is noted that although Furuya recognizes that the electrolyte material can be applied to a perforated plate disposed near the anode (as well as the anode itself, which is exemplified in

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example 9), one of ordinary skill in the art would not have found it obvious to include the porous substrate in an electrochemical cell assembly (with an anode, cathode, and catalyst), especially when in example 9, the substrate is necessarily removed prior to the formation of an electrochemical cell assembly. Accordingly, none of the prior art of record alone or in combination appear to teach, suggest, or render obvious the invention of claim 1. Since claims 2-18 are dependent on claim 1, they would be allowable for the same reasons as well.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUGENIA WANG whose telephone number is (571)272-4942. The examiner can normally be reached on 7 - 4:30 Mon. - Thurs., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. W./

Examiner, Art Unit 1795

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795